

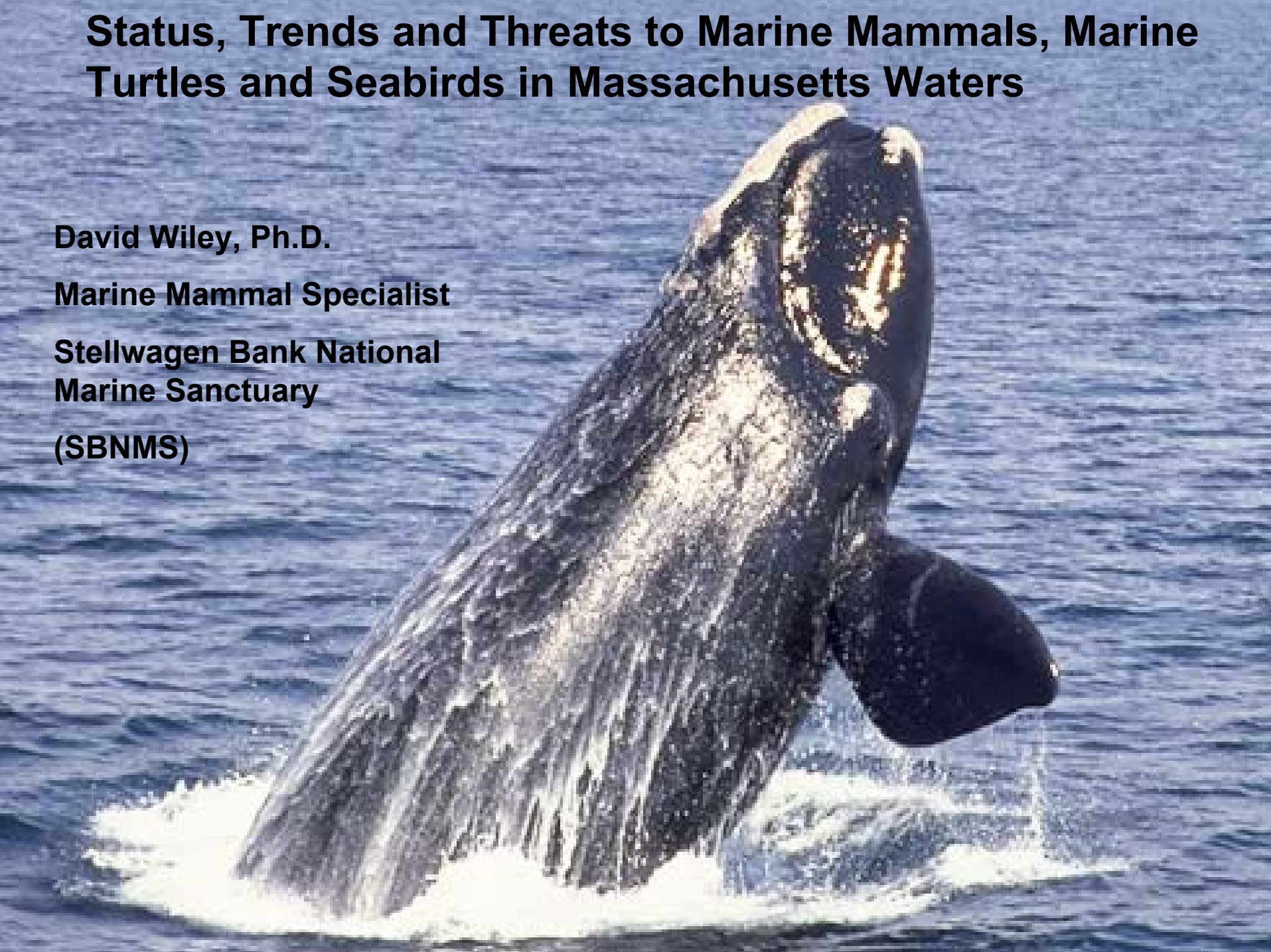
Status, Trends and Threats to Marine Mammals, Marine Turtles and Seabirds in Massachusetts Waters

David Wiley, Ph.D.

Marine Mammal Specialist

**Stellwagen Bank National
Marine Sanctuary**

(SBNMS)



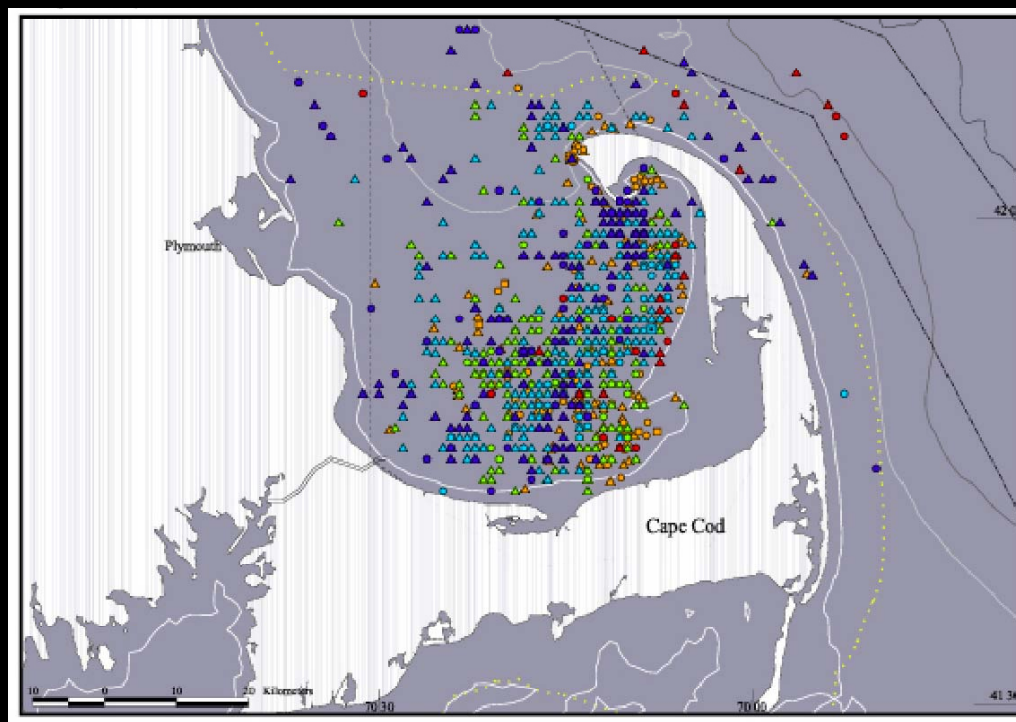
MARINE MAMMALS



CETACEANS: STATUS, TRENDS AND THREATS

<u>SPECIES</u>	<u>POPULATION</u>	<u>STATUS</u>	<u>TRENDS</u>	<u>THREATS</u>
RIGHT WHALE	~300	ENDANGERED, STRATEGIC	NEGATIVE, EXTINCT ~ 200 YRS.	SHIP STRIKE, ENTANGLEMENT, NOISE
HUMPBACK WHALE	HIGH HUNDREDS*	ENDANGERED, STRATEGIC	POSITIVE*	SHIP STRIKE, ENTANGLEMENT, NOISE
FIN WHALE	2,814	ENDANGERED, STRATEGIC	POSITIVE ??	SHIP STRIKE, ENTANGLEMENT, NOISE
MINKE WHALE	4,018	MMPA	UNKNOWN	SHIP STRIKE, ENTANGLEMENT
SEI WHALE	1,393- 2,248	ENDANGERED STRATEGIC	UNKNOWN	SHIP STRIKE, ENTANGLEMENT
BLUE WHALE	LOW HUNDREDS	ENDANGERED	UNKNOWN	SHIP STRIKE, ENTANGLEMENT
PILOT WHALE	14,724	STRATEGIC	UNKNOWN	ENTANGLEMENT
WHITE-SIDED DOLPHIN	51,640*	MMPA	UNKNOWN	ENTANGLEMENT
HARBOR PORPOISE	89,700	STRATEGIC	UNKNOWN	ENTANGLEMENT

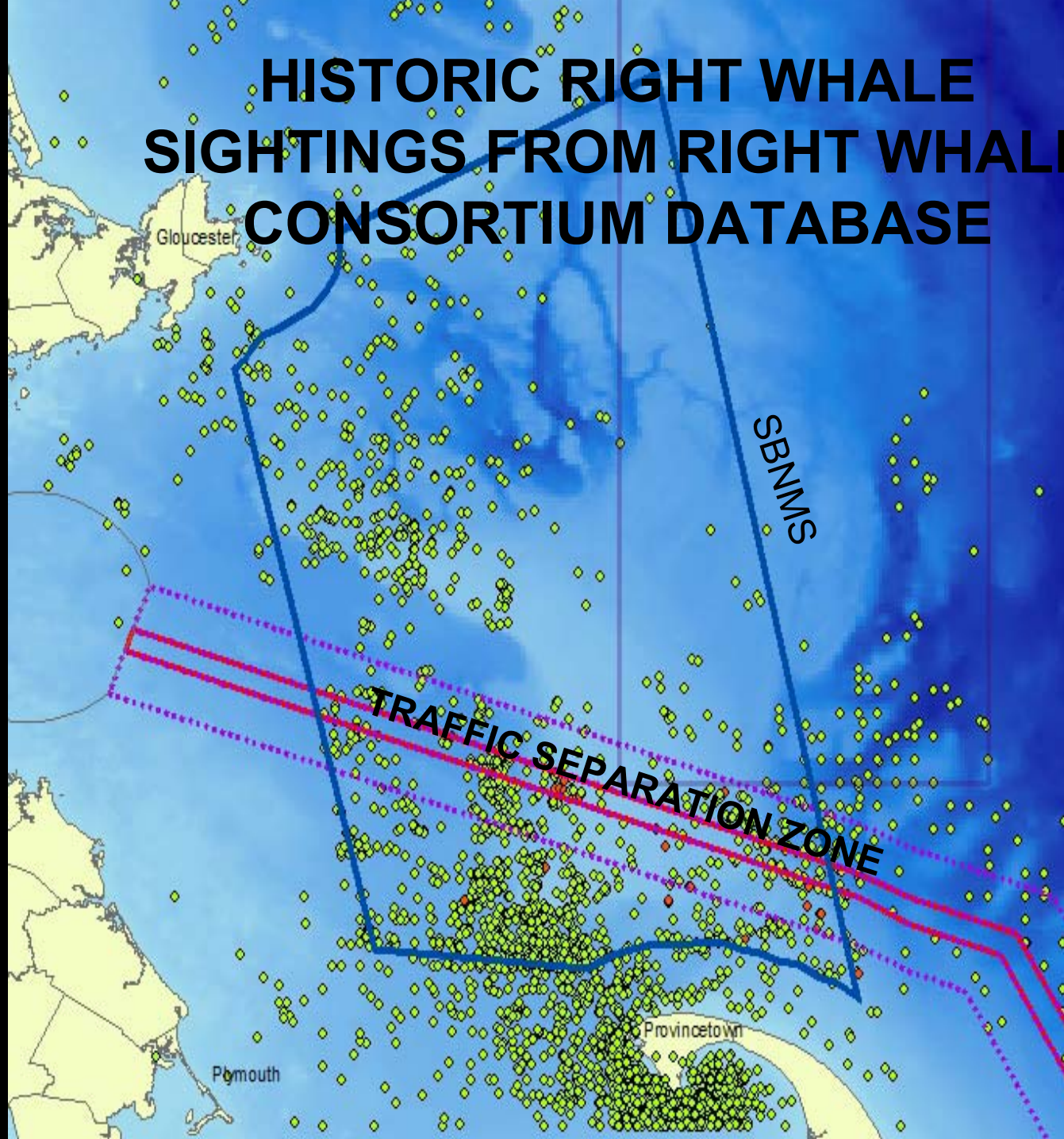
Aerial Surveillance Results Center for Coastal Studies/ MADMF Surveys



Year	Minimum # id'd	Adult/Juvenile	# Unknown age	Males/Females	# Unknown sex
1998	75	58 : 15	2	28 : 38	9
1999	86	55 : 23	8	37 : 35	14
2000	86	64 : 15	7	42 : 36	8
2001	87	57 : 13	17	40 : 30	10
2002 CCB	19	10 : 9	0	2 : 12	5
2002 Stellwagen	21	14 : 3	4	9 : 9	3

The details of the demographic structure of the population broken down by age and sex in bi-weekly intervals are presented in Table 4.

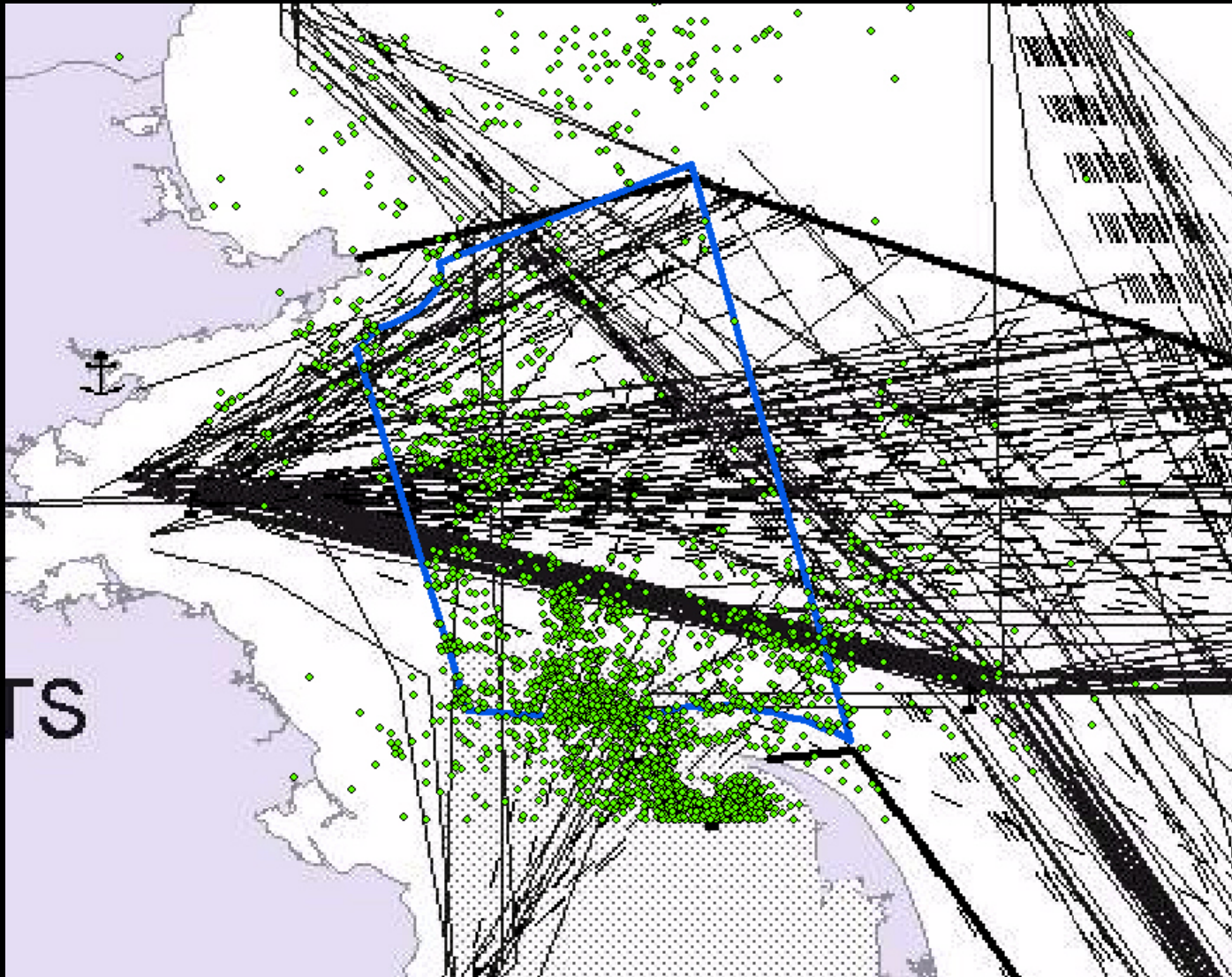
HISTORIC RIGHT WHALE SIGHTINGS FROM RIGHT WHALE CONSORTIUM DATABASE



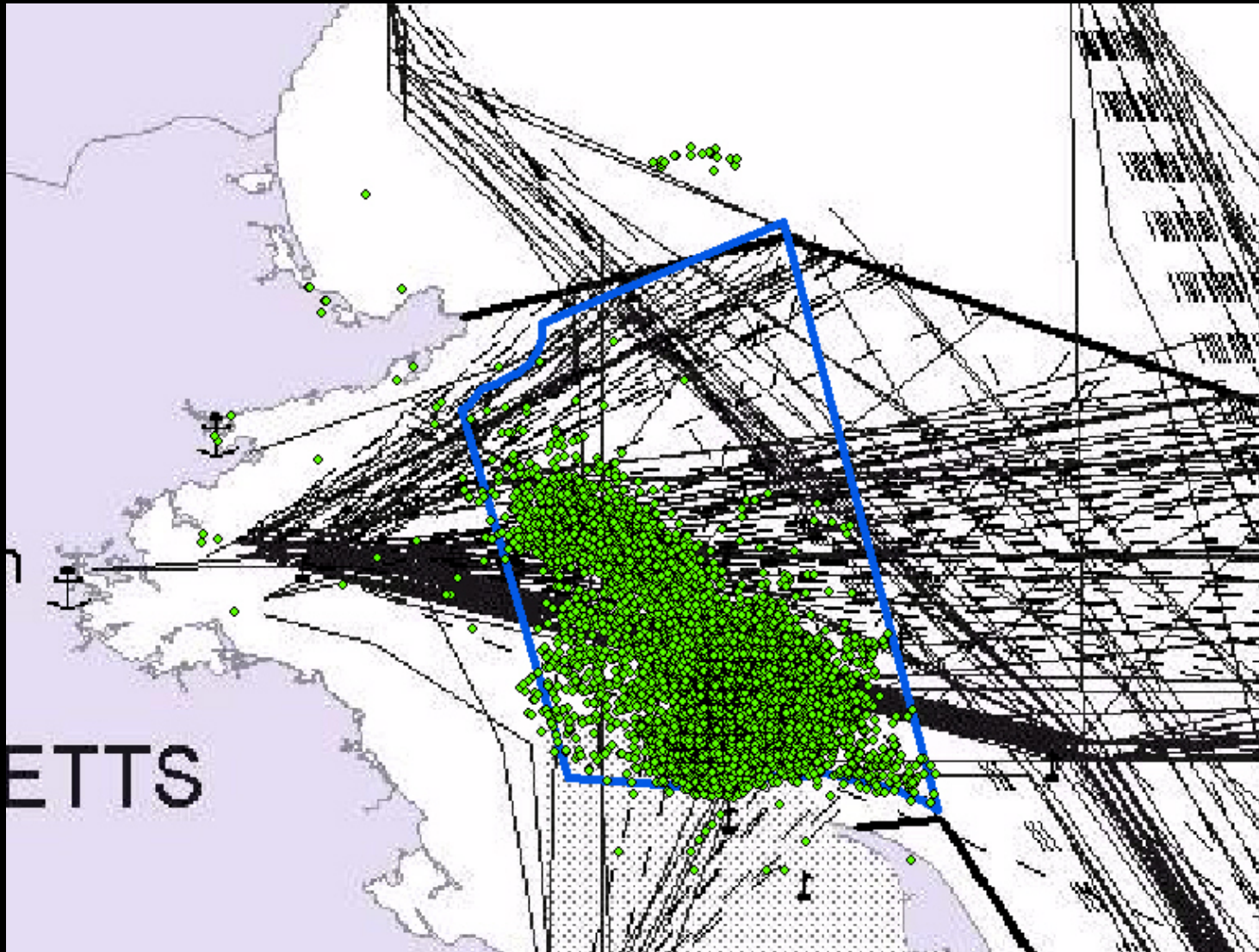


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HISTORIC SIGHTINGS FROM RIGHT WHALE CONSORTIUM DATABASE AND NMFS MSR DATA



SIGHTINGS OF HUMPBACK WHALES (1979-2001) AND NMFS MSR DATA







Alan Hudson



R. Asmutis-Silvia



R. Asmutis-Silvia



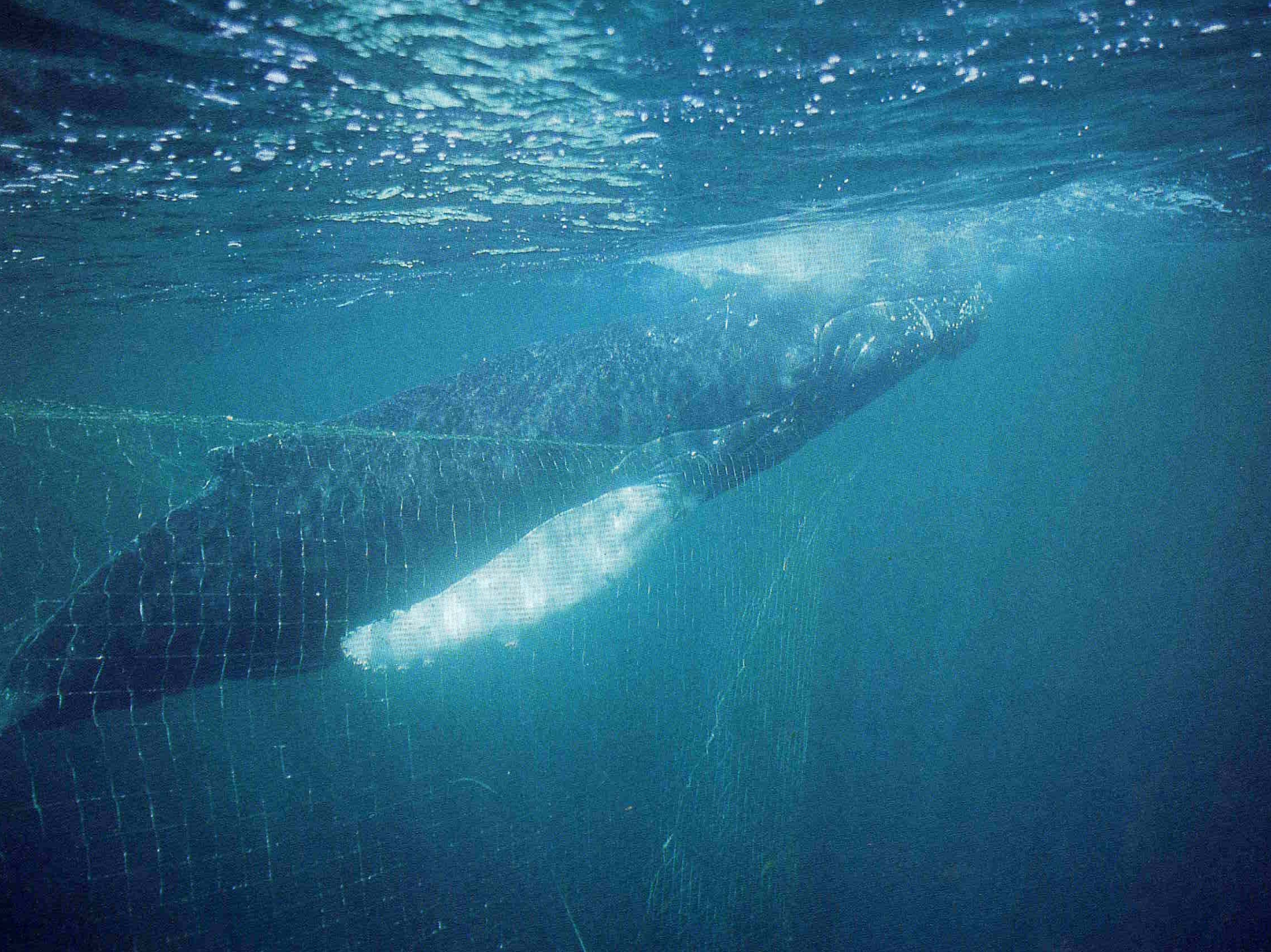
R. Asmutis-Silvia

NOISE AND DISTURBANCE ??



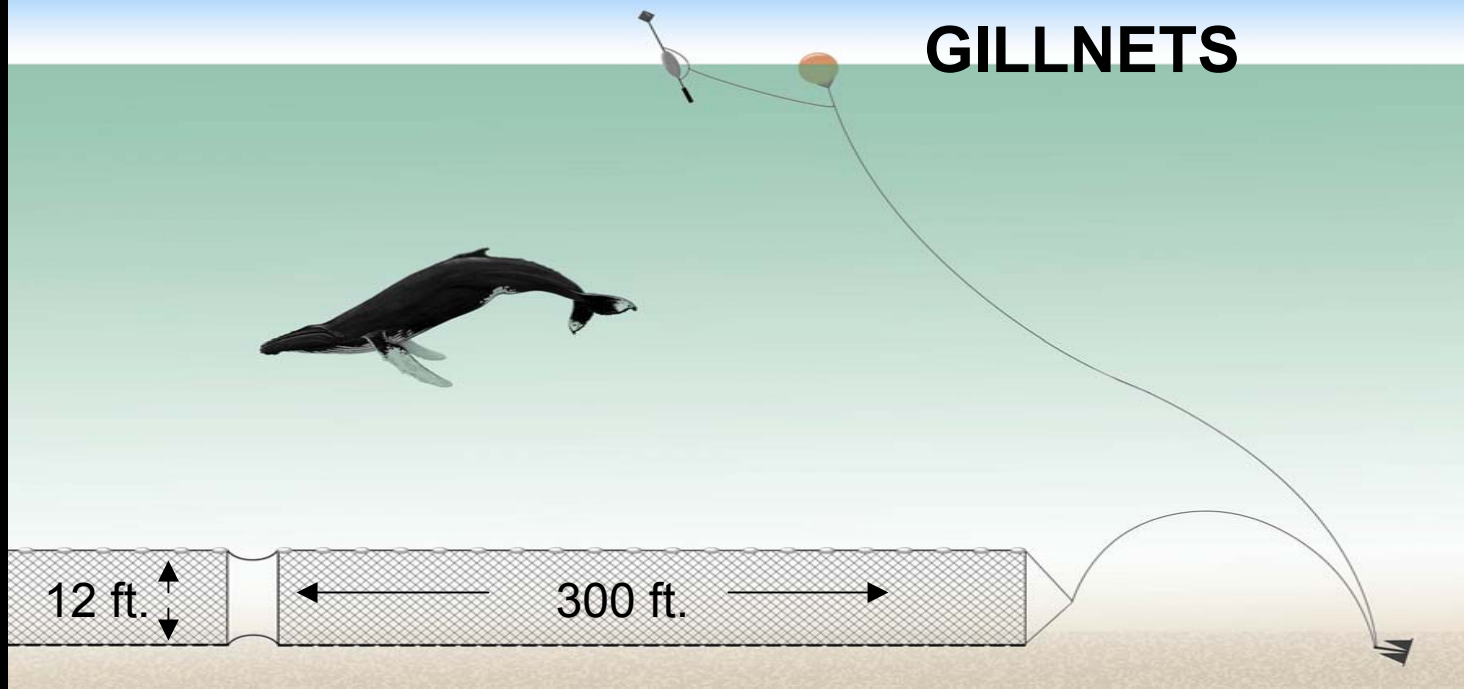
R. Asmutis-Silvia



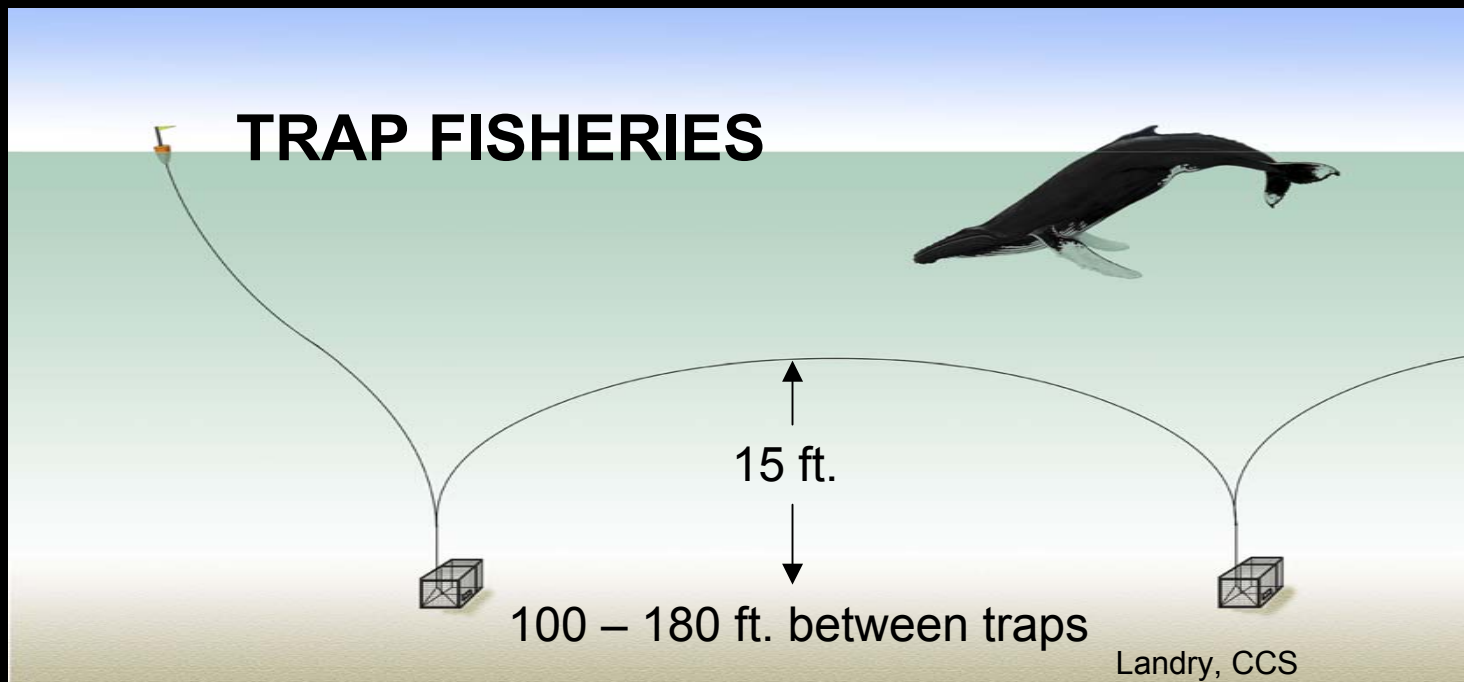




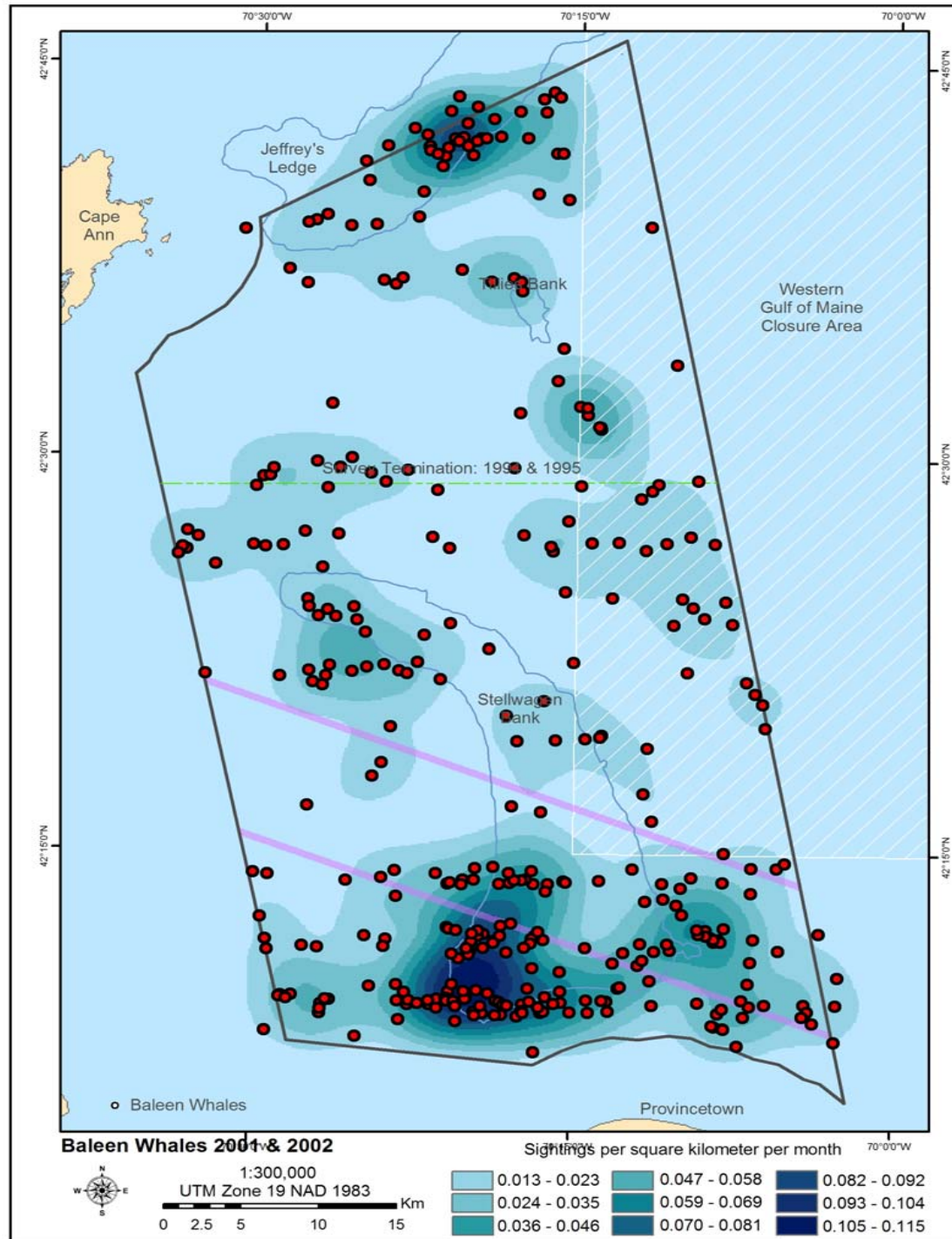
GILLNETS



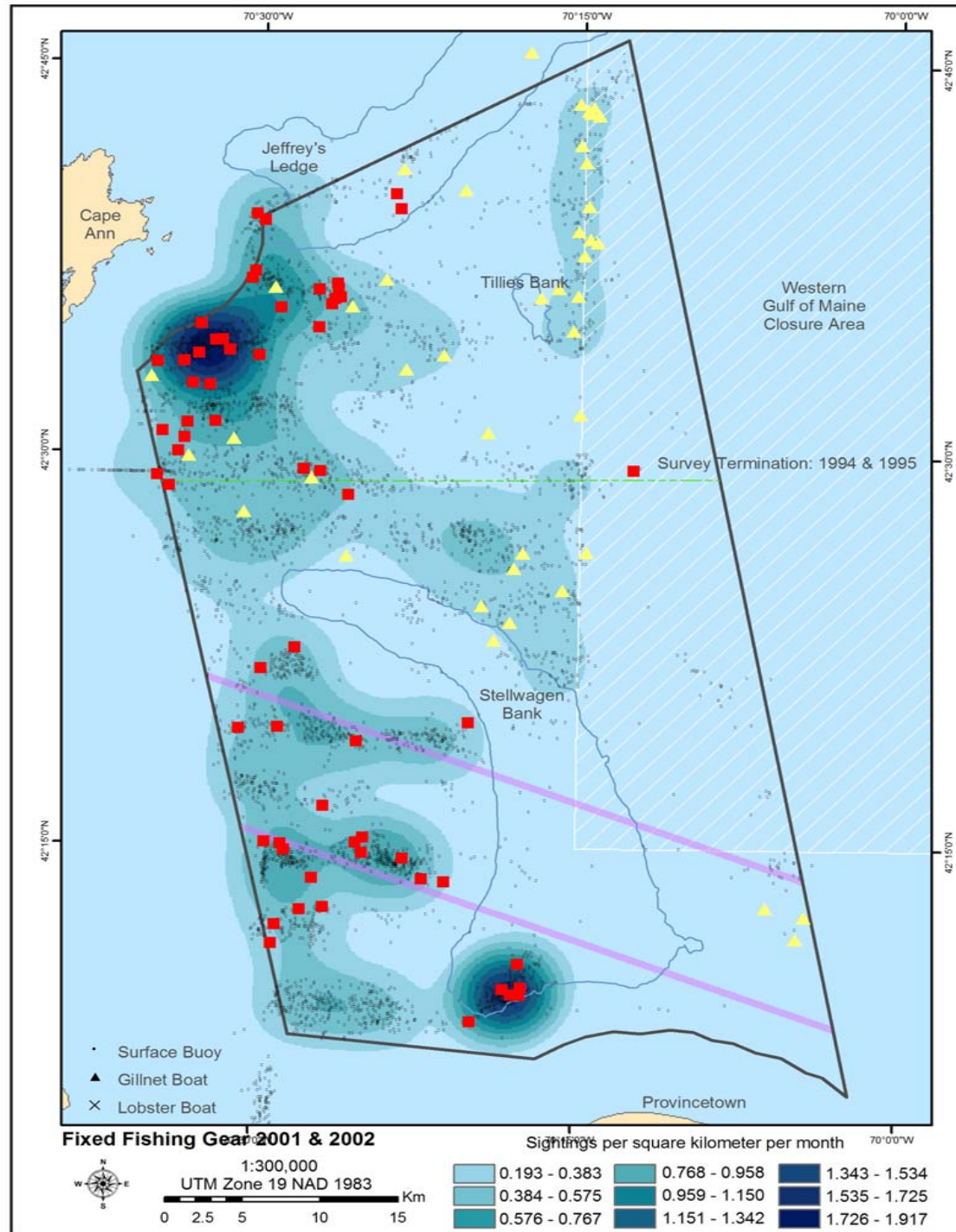
TRAP FISHERIES



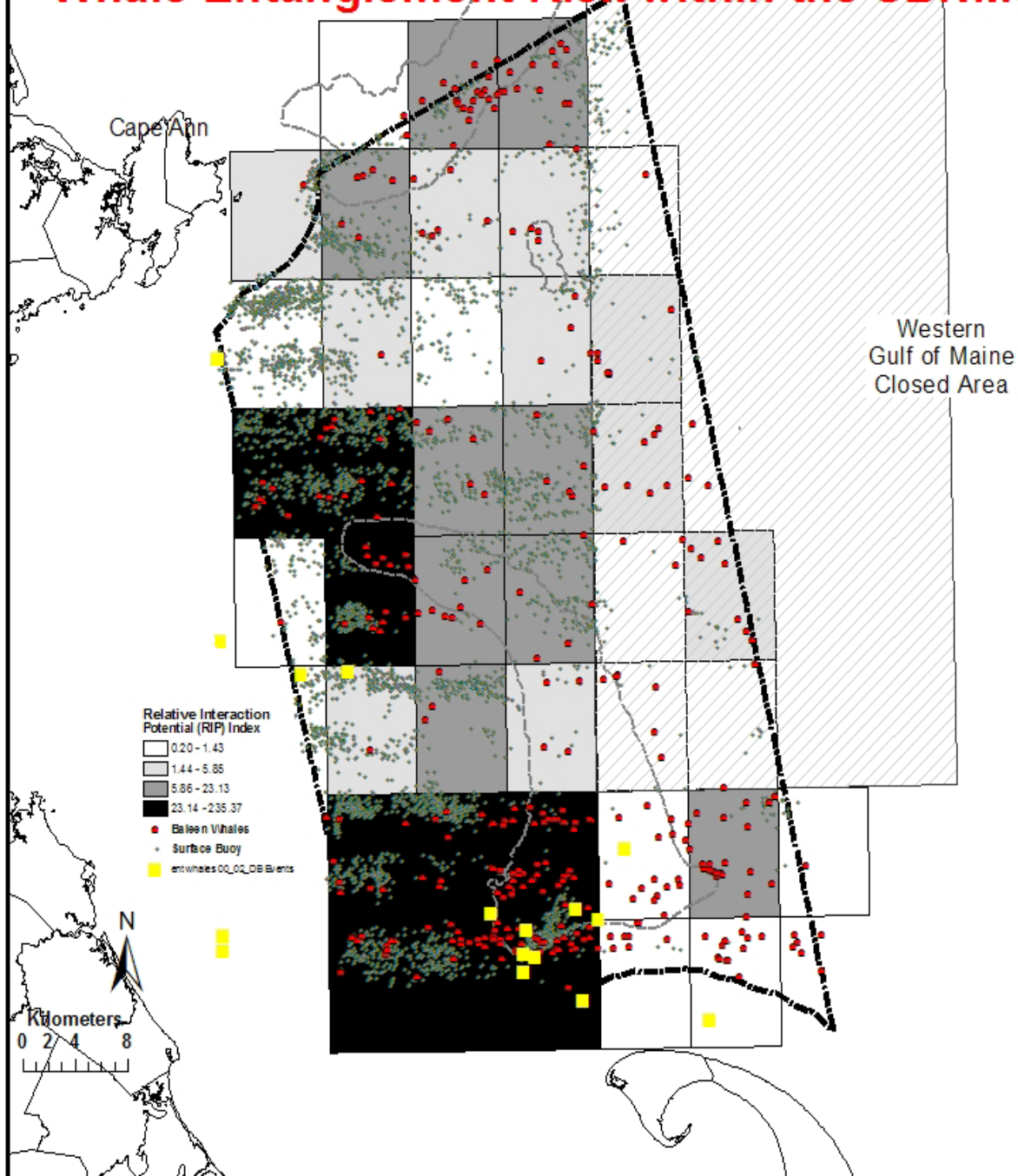
Baleen Whales: 2001-2002



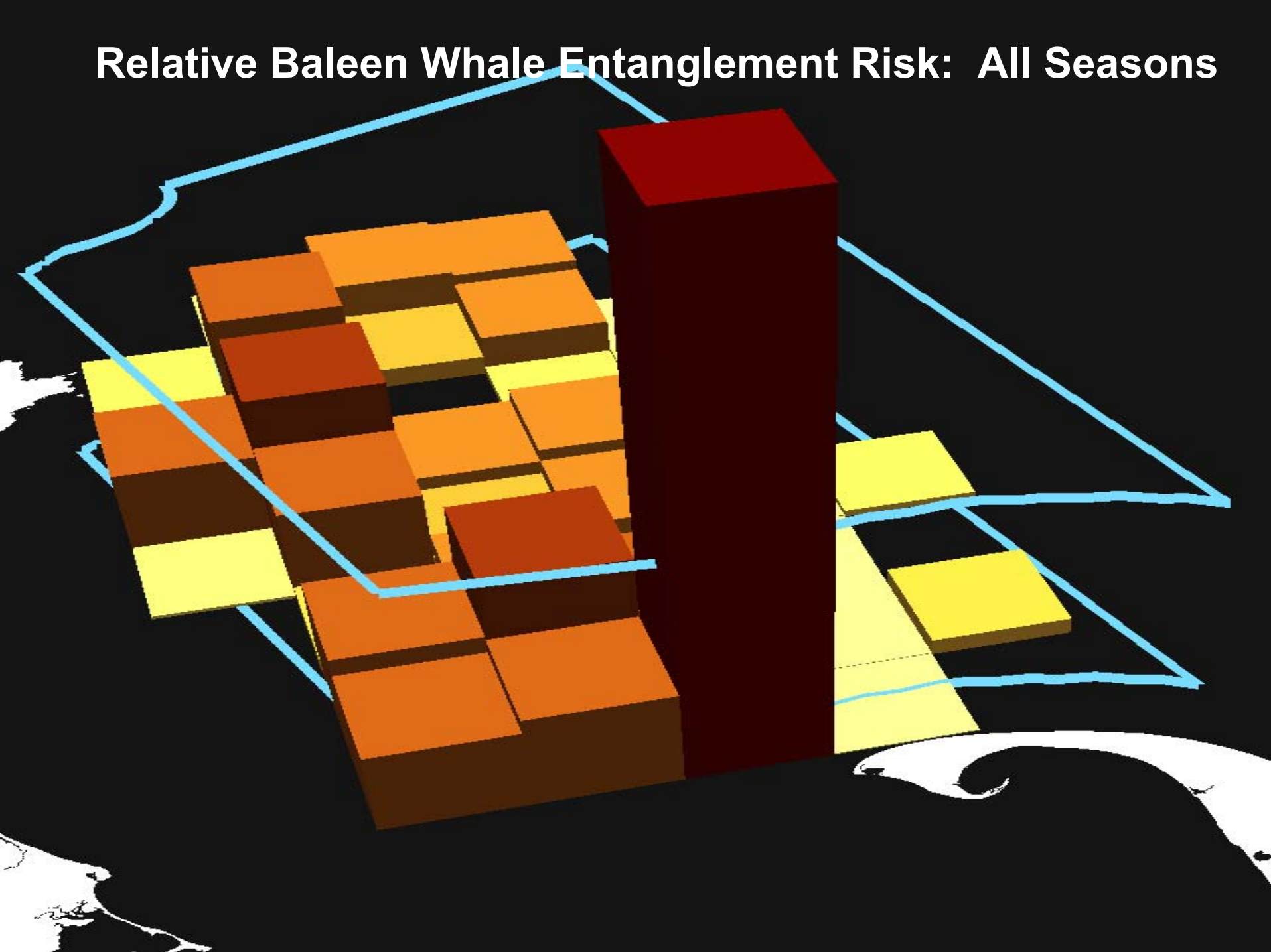
Fixed Fishing Gear: 2001-2002



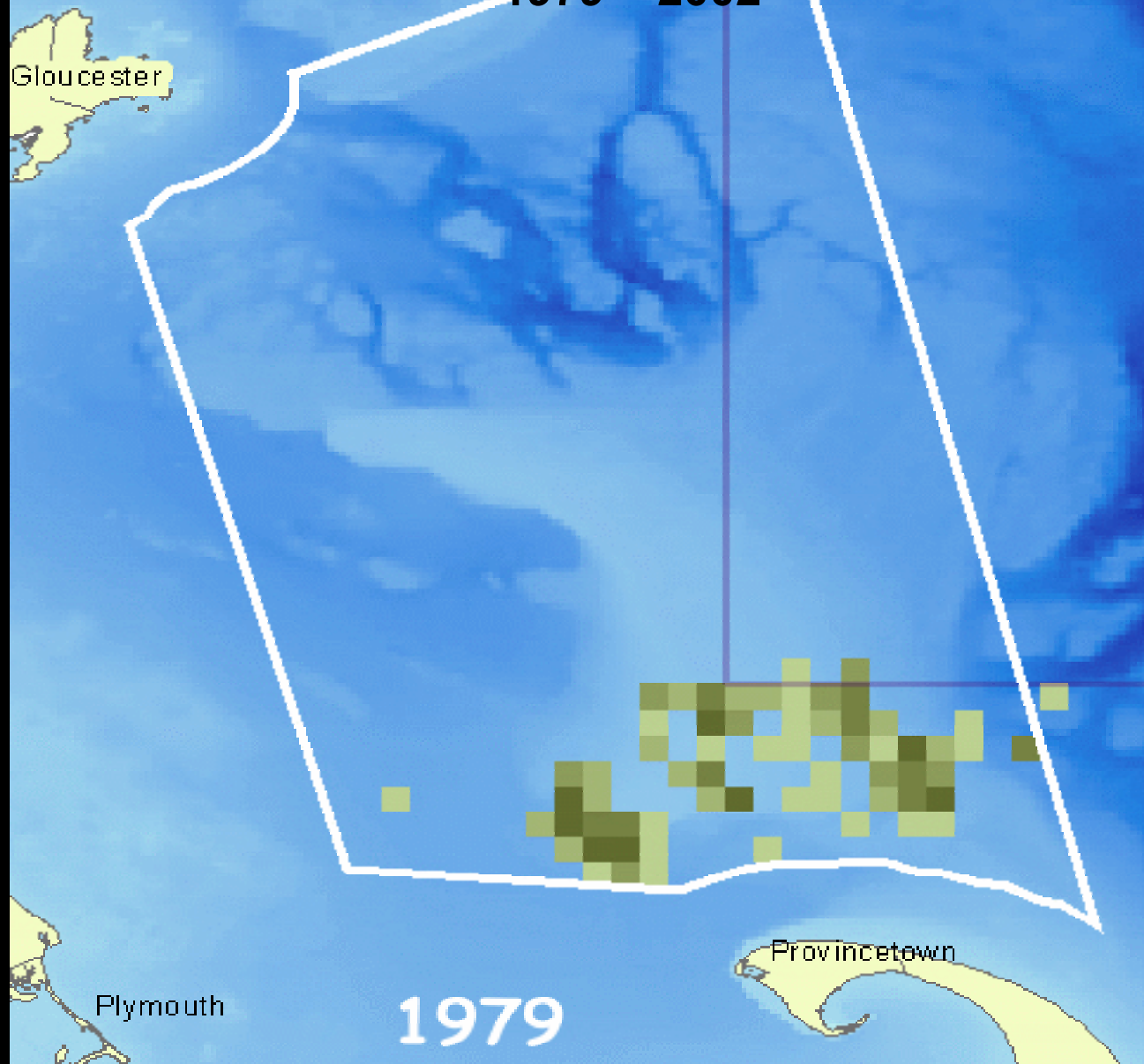
Whale Entanglement Risk within the SBNMS



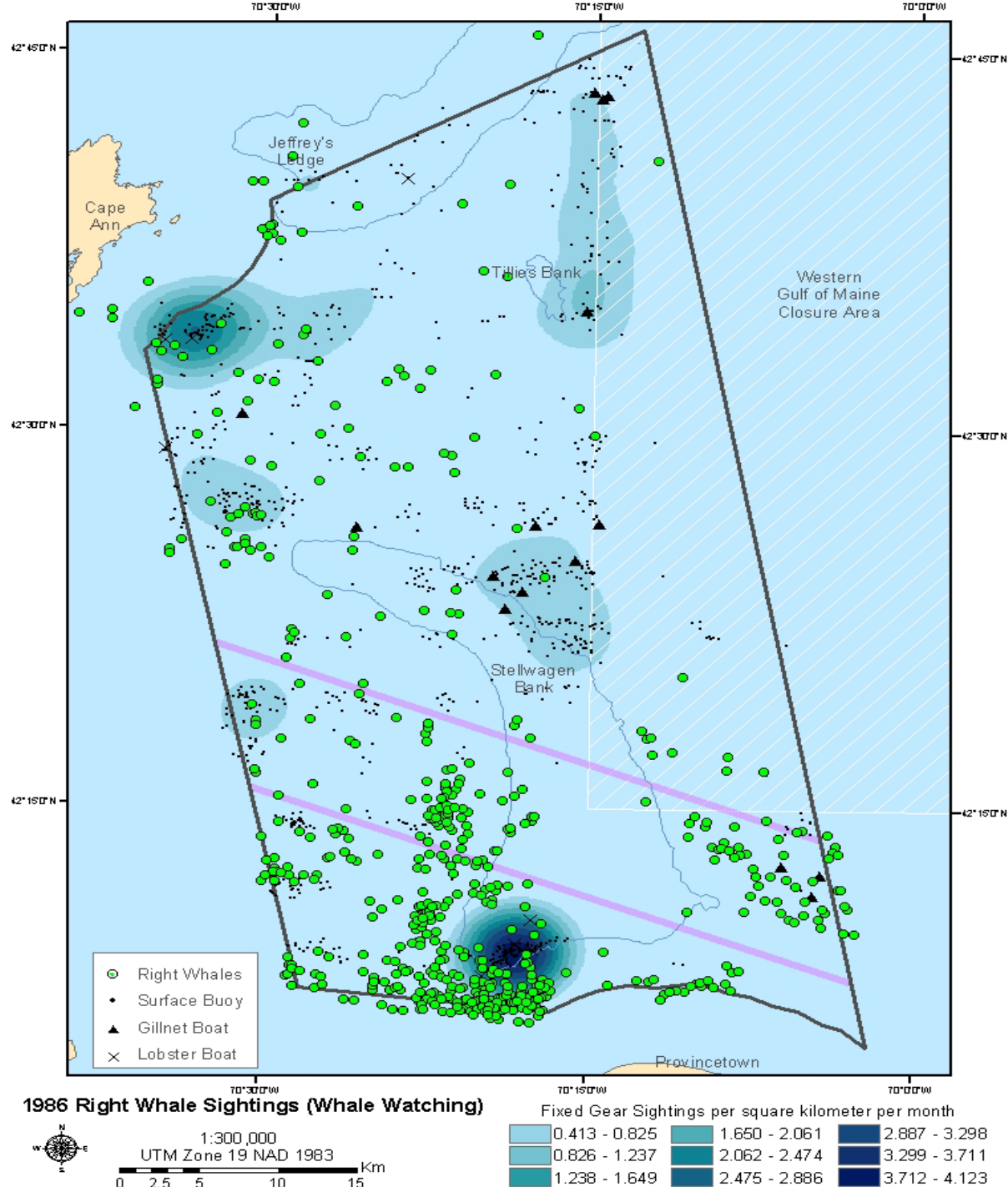
Relative Baleen Whale Entanglement Risk: All Seasons



Distribution & Relative Abundance of Humpback Whales within the SBNMS: 1979 – 2002



RIGHT WHALE SIGHTINGS (1986) AND FIXED GEAR 2001-2002



Atlantic Large Whale Disentanglement Network Coordinated by Center for Coastal Studies



MASS STRANDINGS ON CAPE COD



Photo: Don Lewis

SEALS

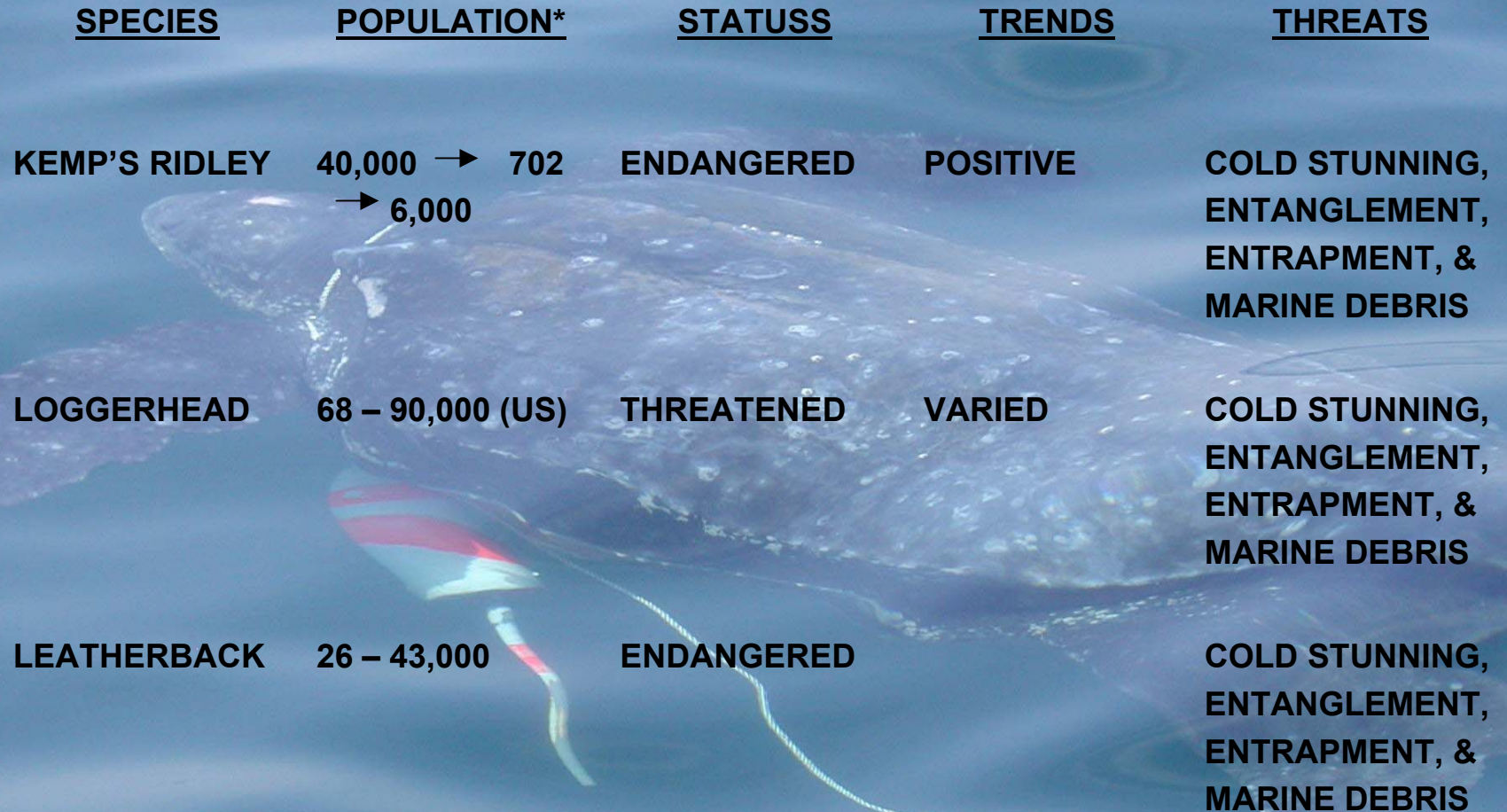


Photo: Don Lewis

PINNIPEDS: STATUS, TRENDS AND THREATS

<u>SPECIES</u>	<u>POPULATION</u>	<u>STATUS</u>	<u>TRENDS</u>	<u>THREATS</u>
HARBOR SEAL	30,990	MMPA	POSITIVE, 4.2%/YR SINCE 1981	ENTANGLEMENT, BOAT STRIKES, POWER PLANT INTAKES, SHOOTING
GRAY SEAL	2,010 (1994) 5,611 (1999) MUSKEGET IS. AND MONOMOY	MMPA	POSITIVE, RATE UNKNOWN	ENTANGLEMENT, BOAT STRIKES, POWER PLANT INTAKES, SHOOTING
HARP SEAL	5.2 MILLION (CANADA)	MMPA	POSITIVE, RATE UNKNOWN	ENTANGLEMENT

MARINE TURTLES



<u>SPECIES</u>	<u>POPULATION*</u>	<u>STATUS</u>	<u>TRENDS</u>	<u>THREATS</u>
KEMP'S RIDLEY	40,000 → 702 → 6,000	ENDANGERED	POSITIVE	COLD STUNNING, ENTANGLEMENT, ENTRAPMENT, & MARINE DEBRIS
LOGGERHEAD	68 – 90,000 (US)	THREATENED	VARIED	COLD STUNNING, ENTANGLEMENT, ENTRAPMENT, & MARINE DEBRIS
LEATHERBACK	26 – 43,000	ENDANGERED		COLD STUNNING, ENTANGLEMENT, ENTRAPMENT, & MARINE DEBRIS

* NUMBERS ARE FOR NESTING FEMALES/YEAR

Photo: Don Lewis

2002 Strandings

1

3

2

35

40

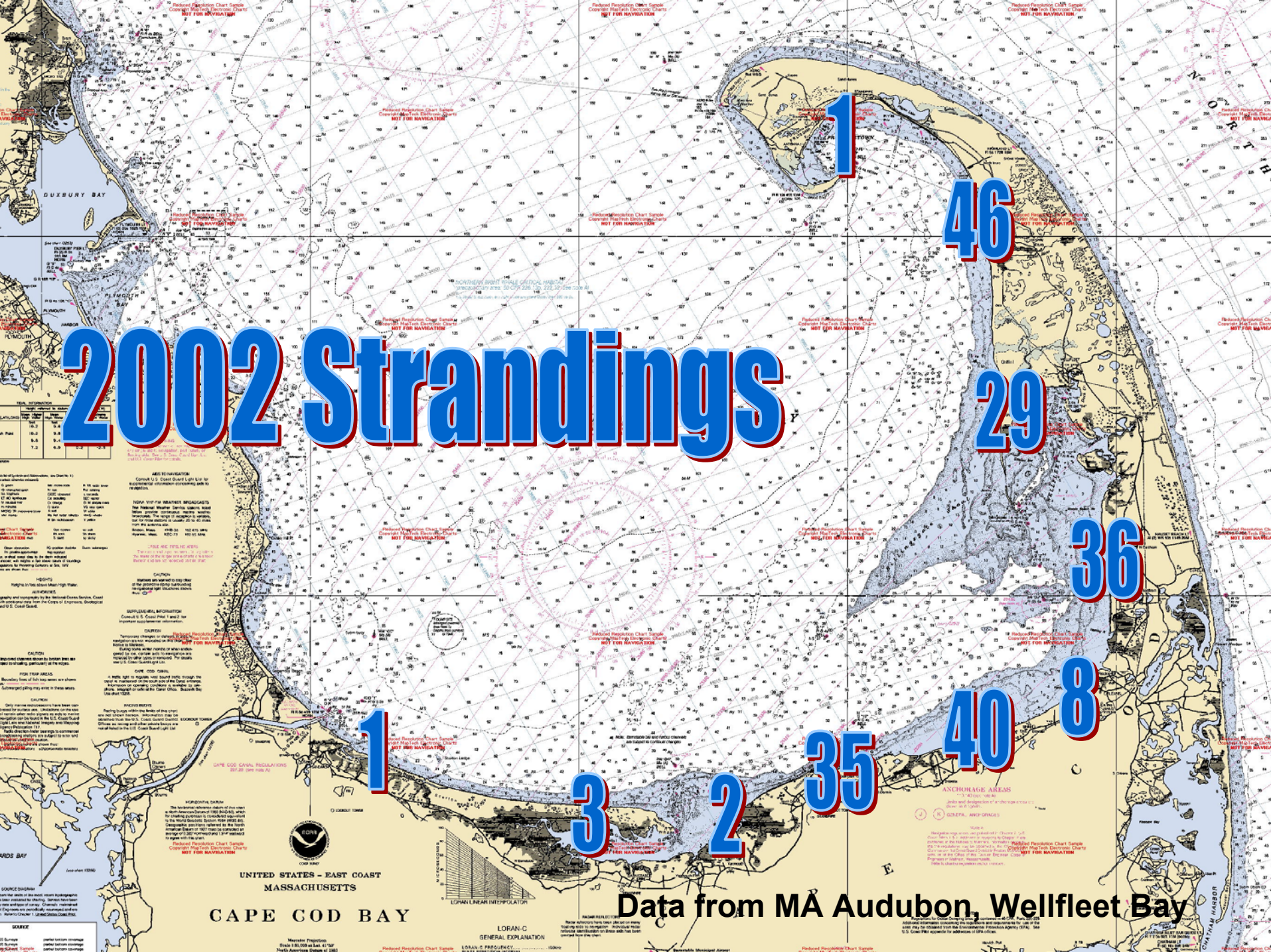
8

36

29

46

1



UNITED STATES - EAST COAST
MASSACHUSETTS

CAPE COD BAY

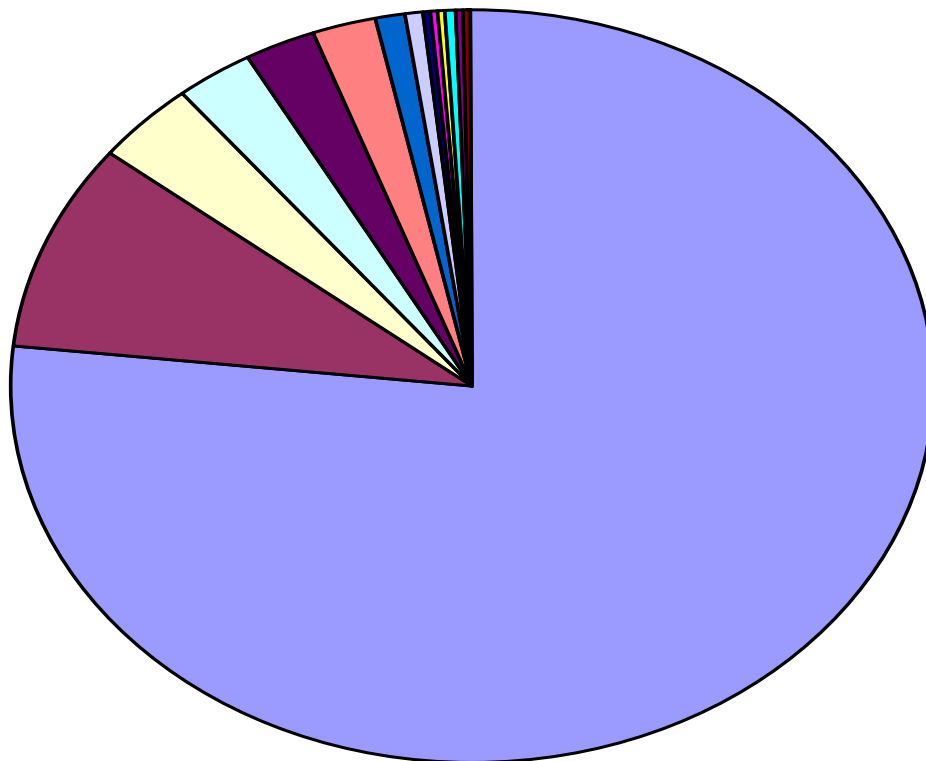
Data from MA Audubon, Wellfleet Bay

STATUS, TRENDS and THREATS TO SEABIRDS

- OIL SPILLS
- ENTANGLEMENT
IN FISHING
GEAR
- FOOD SOURCE
(SANDLANCE)
- NESTING
HABITAT
- DISTURBANCE

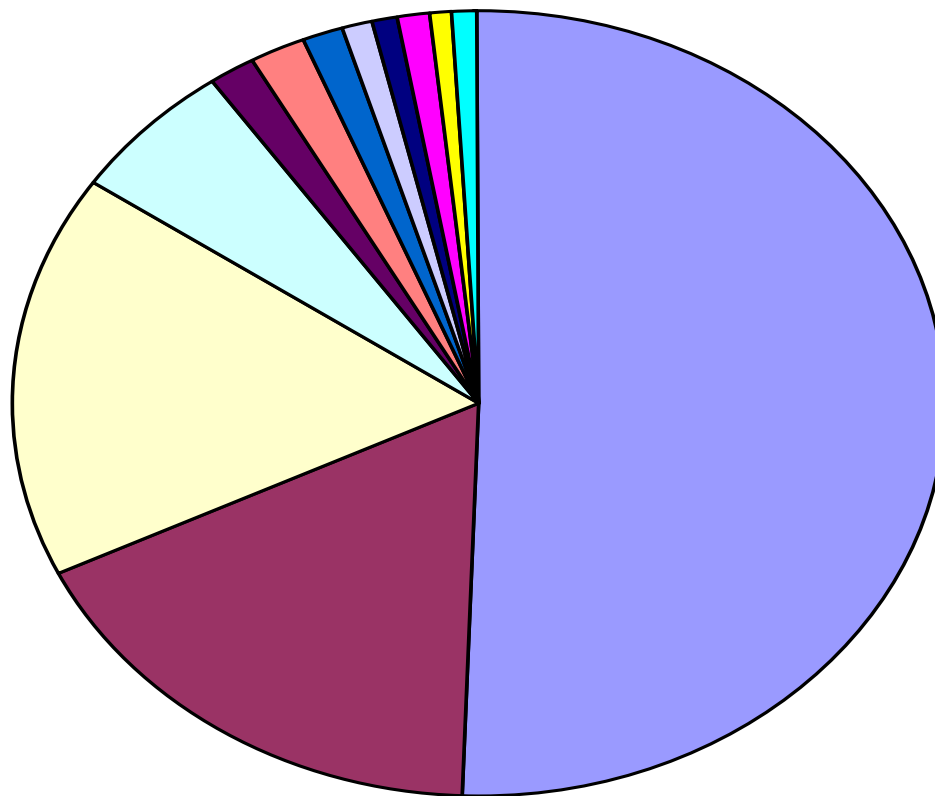


Species & Relative Abundance of Seabirds within the SBNMS: August 1994



- WILSON'S STORM-PETREL
- COMMON TERN
- GREAT BLACK-BACKED GULL, ADULT
- HERRING GULL, ADULT
- GREAT BLACK-BACKED GULL, JUVENILE
- HERRING GULL, JUVENILE
- NORTHERN GANNET, SUBADULT
- LAUGHING GULL, JUVENILE
- GREAT BLACK-BACKED GULL, SUBADULT
- GREATER SHEARWATER
- MANX SHEARWATER
- NORTHERN GANNET, ADULT
- RED-NECKED PHALAROPE
- POMARINE JAEGER

Species & Relative Abundance of Seabirds in the SBNMS: Feb. 1994



- RAZORBILL
- GREAT BLACK-BACKED GULL, ADULT
- HERRING GULL, ADULT
- UNIDENTIFIED LARGE ALCID
- COMMON EIDER
- BLACK-LEGGED KITTIWAKE, ADULT
- GREAT BLACK-BACKED GULL, SUBADULT
- BLACK GUILLEMOT
- OLDSQUAW
- HERRING GULL, SUBADULT
- DOVEKIE
- ATLANTIC PUFFIN

HIGHER ENTANGLEMENT RISK IN WINTER AS
ALCIDS ARE DEEPER DIVERS

SUMMARY

- MA has a major role to play in the conservation of marine mammals, marine turtles and seabirds.
- MA is already a leader in many of these areas.
- MA is rich in research and conservation groups addressing these issues.
- A great deal of work remains.